

FLCB051076AAAA

Rechargeable Lithium-Ceramic Battery

Ultra-Safe
Ultra-Thin
Flexible
Able to Multiple Layer Stacking

Benefits

- Ultra-Thin: fit for Tag / Tracker application
- Ultra-Safe: solid-state battery, no leakage even cells cutting
- Flexible: fit for soft package
- High Stability: stable performance at high / low pressure environment
- Design Flexibility: able to multiple layer stacking to increase capacity

Key features

- Thickness of single cell is only 0.43mm
- Pass UL1642 / IEC62133: No leakage, no fire, no explosion even devices drop, crash, folded, or sink
- Pass ISO7816 bending / twisting test over 1000 cycles
- Extreme vacuum (0.0016psia) / Extreme high loading pressure (711psia, 48atm)
- Fit for variety flexible material design : leather, silicon

Main applications

- Wearable devices : Smart insole/ Smart clothing
- Portable accessories : Emergency Powerbank / Phone case/ Flexible Tracker
- Others : Head-mounted display

Transportation and storage:

- Store in a dry place at a temperature preferably not exceeding 30°C.
- For long-term storage, keep the battery within a (30 ± 15) % state of charge.



Electrical Characteristics

Nominal capacity	90mAh
Nominal voltage	3.75V
Operating voltage	4.35~2.75V
Energy Density	229 Wh/L

Mechanical Characteristics

Thickness (max)	0.43 mm
Width	51.5 mm
Length	76 mm (without terminal)
Typical weight	3.1 g

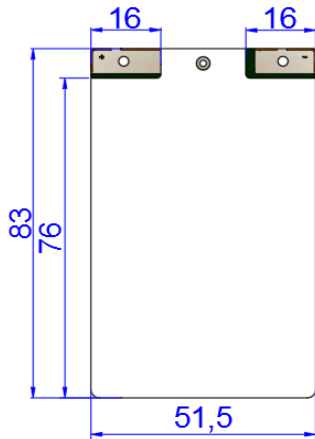
Operating Conditions

Standard charge	CC-CV (Constant Current & Constant Voltage) Current 0.2CmA/ Voltage 4.35V Cut-off current: 0.05C
Max continuous charge current	1CmA
Standard discharge	CC (Constant Current) Current 0.2CmA Cut-off voltage: 2.75V
Max continuous discharge current	1CmA
Operation window	-20°C to +60°C

* Consult ProLogium for optimized charging below -20°C

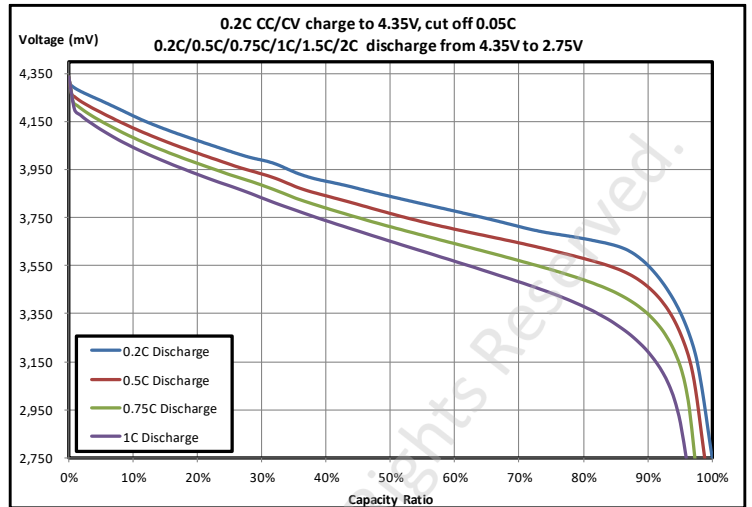
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2D Drawing



Unit: mm
Tolerances : ±0.5mm

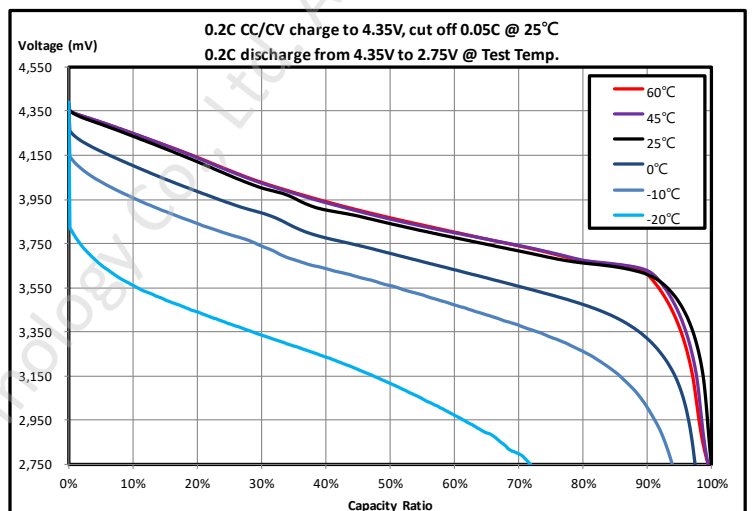
Discharge profiles (0.2/0.5/0.75/1C rate)



When handling ProLogium batteries:

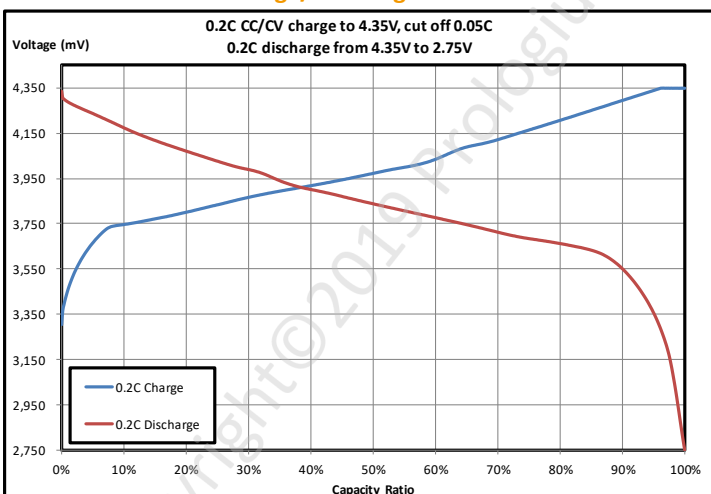
- Do not throw the battery into fire, nor heat.
- Do not disassemble nor modify.
- Do not leave in a place of $\geq 60^{\circ}\text{C}$.
- Prevent from water or moisture.
- Do not add strong shock, nor drop.
- Do not solder lead directly to battery body.
- Do not short + and - terminals with metal.
- Do not charge beyond the condition which described on the delivery specification.
- Do not inverse charge.

Operation Temperature Test (-20°C to +60°C)

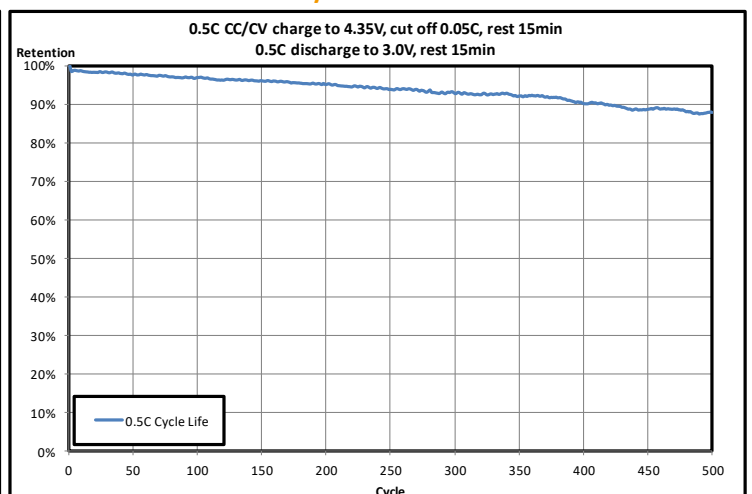


Typical characteristics:

Charge/Discharge Profile



Cycle Life Test



*charge/discharge/cycle tests criteria: @room temp. (25°C)